

INPUT/OUTPUT ARCHITECTURE FOR INTEGRATED CIRCUITS

ABSTRACT OF THE DISCLOSURE

A described embodiment of the present invention includes an integrated
5 circuit having a plurality of I/O modules. The I/O modules include a bond pad
formed on a substrate. The I/O modules also include an electrostatic discharge device
formed in the substrate. The electrostatic discharge device is at least partially formed
beneath the bond pad. The I/O module also includes an I/O buffer formed in the
substrate. The I/O buffer is connected to the bond pad. The I/O buffer provides
10 communication between the bond pad and circuitry formed in the substrate. The
circuitry is positioned substantially adjacent to both the electrostatic discharge device
and the I/O buffer.